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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,777	01/11/2001	Alan Shapiro	TAG-3.2.001/3658	1711

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EXAMINER
GRAHAM, CLEMENT B

ART UNIT	PAPER NUMBER
3692	

NOTIFICATION DATE	DELIVERY MODE
08/24/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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IPDocket@gibbonslaw.com

	Application No.	Applicant(s)
Office Action Summary	09/758,777	SHAPIRO, ALAN
	Examiner	Art Unit	
	Clement B. Graham	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 May 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,6-15,18-20,25-34 and 39-47* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 6-15, 18-20, 25-34, 39-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1, 6-15,18-20, 25-34, 39-47 remained pending.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1, 6-15,18-20, 25-34, 39-47, are rejected under 35 U.S.C. 103(a) as being
unpatentable over Lupien et al (Hereinafter Lupien U.S Patent 6, 012, 046) in view of
Dembo U.S Patent 5, 799, 287) in view of Nadan et al (Hereinafter Nadan U.S Pub:
2005/0021346A1).

As per claims 1, 6-14, Lupien discloses a method of directing a securities trade
order to a particular market method comprising:
receiving trade execution quality preference information supplied by a user (see column
7 lines 15-53) receiving an order for at least one securities trade from said user (see
column 6 lines14-22).

Lupien fail comparing explicitly teach statistical measures of said at least a
selected two of a plurality of execution quality parameters, receiving assigned relative
weight value for at least one of said selected execution quality parameters, statistical
measures of said at least two selected execution quality parameters to provide a
comparison, said comparison assigning greater significance to respective ones of said
selected execution quality parameters having a greater assigned relative weight value
than others of said selected execution quality parameters.

However Dembo discloses a representative embodiment of the method and
apparatus according to the present invention is a computer-based system that
generates a replicating portfolio in four steps: information gathering, preprocessing,
optimizing, and pricing. In the information gathering step, a user identifies certain sets of
instruments and relevant instrument attributes. For example, the user identifies a target
instrument or portfolio of instruments that has an expected payoff at a specified rollover

date corresponding to a desired profile, a set of instruments that may be used to create a hedge portfolio, a current portfolio (if one is held), and any new securities to be priced. In addition, the user specifies ranges of values for any uncertain parameters (for example, volatility, yields, beta) to be used in calculating the future value of the instruments specified. These ranges of values define the future states with respect to which the hedge, state price vector and risk/reward profile will be created. Finally, the user assigns a weight to each of the values in the ranges to indicate an estimate of the relative probability of a particular future state actually occurring. (see column 3 lines 63-67 and column 4 lines 1-6 and column 14-67 and column5-15 lines 1-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Lupien to include statistical measures of said at least a selected two of a plurality of execution quality parameters, receiving assigned relative weight value for at least one of said selected execution quality parameters, statistical measures of said at least two selected execution quality parameters to provide a comparison, said comparison assigning greater significance to respective ones of said selected execution quality parameters having a greater assigned relative weight value than others of said selected execution quality parameters taught by Dembo in order to provide an predictive routing system for users trading of securities.

Lupien and Dembo fail to explicitly teach selected from the following: execution at/within best bid and offer, price improvement, speed of execution, liquidity enhancement, size improvement, and performance above the national average price.

However discloses shipper bids and carrier offers, total number of currently available shipments and trucks, last trade and daily trade volume, depth of the market including shipment details such as accessorials and special shipment requirements, alerts to transportation problems, tracking and tracing of your loads in transit, completed shipment reports, and even historical rates with supply and demand data.(see column 13 para 0234 and PARA 0206-0210).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Lupien and Dembo to include selected

from the following: execution at/within best bid and offer, price improvement, speed of execution, liquidity enhancement, size improvement, and performance above the national average price taught by Nadan in order to manage transportation instruments.

As per claims 15, 18-19, Lupien discloses method, performed using a computer device, of placing an order to trade at least one security, said method comprising: providing user-defined trade execution quality preference information to a broker/dealer, selecting at least one security for trading; and transmitting an order for trading said security to a broker/dealer such that said order is carried out at a preferred one of a plurality of market centers, said preferred market center being selected as a function of a comparison of said user-defined trade execution quality preference information with at least one statistical measure for each of said plurality of market centers, at least a selected two of a plurality.(see column 7 lines 15-53 and column 1 lines 27-40 and column 6 lines 14-22).

Lupien fail to explicitly teach providing an relative weight value to at least one of said selected execution quality parameters, said comparison assi ng mg greater significance to respective ones of said selected execution quality parameters having a greater assigned relative weight value than others of said selected execution quality parameters.

However Dembo discloses a representative embodiment of the method and apparatus according to the present invention is a computer-based system that generates a replicating portfolio in four steps: information gathering, preprocessing, optimizing, and pricing. In the information gathering step, a user identifies certain sets of instruments and relevant instrument attributes. For example, the user identifies a target instrument or portfolio of instruments that has an expected payoff at a specified rollover date corresponding to a desired profile, a set of instruments that may be used to create a hedge portfolio, a current portfolio (if one is held), and any new securities to be priced. In addition, the user specifies ranges of values for any uncertain parameters (for example, volatility, yields, beta) to be used in calculating the future value of the instruments specified. These ranges of values define the future states with respect to which the hedge, state price vector and risk/reward profile will be created. Finally, the

user assigns a weight to each of the values in the ranges to indicate an estimate of the relative probability of a particular future state actually occurring. (see column 3 lines 63-67 and column 4 lines 1-6 and column 14-67 and column5-15 lines 1-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Lupien to include providing an relative weight value to at least one of said selected execution quality parameters, said comparison assi ng mg greater significance to respective ones of said selected execution quality parameters having a greater assigned relative weight value than others of said selected execution quality parameters taught by Dembo in order to provide an predictive routing system for users trading of securities.

Lupien and Dembo fail to explicitly teach the execution quality parameters being selected from the following: execution at/within best bid and offer, price improvement, speed of execution, liquidity enhancement size improvement, and performance above the national average price.

However discloses shipper bids and carrier offers, total number of currently available shipments and trucks, last trade and daily trade volume, depth of the market including shipment details such as accessorials and special shipment requirements, alerts to transportation problems, tracking and tracing of your loads in transit, completed shipment reports, and even historical rates with supply and demand data.(see column 13 para 0234 and PARA 0206-0210).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Lupien and Dembo to include the execution quality parameters being selected from the following: execution at/within best bid and offer, price improvement, speed of execution, liquidity enhancement size improvement, and performance above the national average price taught by Nadan in order to manage transportation instruments.

As per claims 20, 25-33, Lupien discloses a system for routing orders in financial market comprising: a computer device configured to receive trade execution quality preference information supplied by a user and further configured to receive an order for at least one securities trade from said user a database configured to store a processor

device, in communication with said computer device and said database(see column 7 lines 15-53 and column 6 lines 14-22 and column 4 lines 1-67 and column 5 lines 1-35).

Lupien fail to explicitly teach a configured to compare at least one statistical measure for each of a plurality of market centers and statistical measures of at least a selected two of a plurality of execution quality parameters at each of said plurality of market centers, the selected two of the plurality of execution quality parameters having assigned relative weight values, the processor device being further configured to assign greater significance to respective ones of said selected execution quality parameters having a greater assigned relative weight value than others of said selected execution quality parameters and further configured to route said order to one of said plurality of market centers as a function of said comparison.

However Dembo discloses A representative embodiment of the method and apparatus according to the present invention is a computer-based system that generates a replicating portfolio in four steps: information gathering, preprocessing, optimizing, and pricing. In the information gathering step, a user identifies certain sets of instruments and relevant instrument attributes. For example, the user identifies a target instrument or portfolio of instruments that has an expected payoff at a specified rollover date corresponding to a desired profile, a set of instruments that may be used to create a hedge portfolio, a current portfolio (if one is held), and any new securities to be priced. In addition, the user specifies ranges of values for any uncertain parameters (for example, volatility, yields, beta) to be used in calculating the future value of the instruments specified. These ranges of values define the future states with respect to which the hedge, state price vector and risk/reward profile will be created. Finally, the user assigns a weight to each of the values in the ranges to indicate an estimate of the relative probability of a particular future state actually occurring. (see column 3 lines 63-67 and column 4 lines 1-6 and column 14-67 and column5-15 lines 1-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Lupien to include a configured to compare at least one statistical measure for each of a plurality of market centers and statistical measures of at least a selected two of a plurality of execution quality

parameters at each of said plurality of market centers, the selected two of the plurality of execution quality parameters having assigned relative weight values, the processor device being further configured to assign greater significance to respective ones of said selected execution quality parameters having a greater assigned relative weight value than others of said selected execution quality parameters and further configured to route said order to one of said plurality of market centers as a function of said comparison taught by Dembo in order to provide an predictive routing system for users trading of securities.

Lupien and Dembo fail to explicitly teach and offer, price improvement, speed of execution, liquidity enhancement, size improvement, and performance above the national average price.

However discloses shipper bids and carrier offers, total number of currently available shipments and trucks, last trade and daily trade volume, depth of the market including shipment details such as accessorials and special shipment requirements, alerts to transportation problems, tracking and tracing of your loads in transit, completed shipment reports, and even historical rates with supply and demand data.(see column 13 para 0234 and PARA 0206-0210).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Lupien and Dembo to include and offer, price improvement, speed of execution, liquidity enhancement, size improvement, and performance above the national average price, taught by Nadan in order to manage transportation instruments.

As per claims 34, 39-47, Lupien discloses a computer readable medium comprising instructions for directing a securities trade order to a particular financial market, said instructions comprising: instructions for receiving at least a selected two of a plurality of trade execution quality preference information supplied by a user, instructions for routing said order to one of said plurality of market centers as a function of said comparison, instructions for receiving selected execution quality parameters, instructions for receiving an order for at least one securities trade from said user; instructions for comparing said user supplied trade execution quality preference

information (see column 7 lines 15-53 and column 6 lines 14-22 and column 4 lines 1-
67 and column 5 lines 1-35).

Lupien fail to explicitly teach statistical measure for each of a plurality of market
centers to provide a comparison, said comparison assigning greater significance to
respective ones of said selected execution quality parameters having_ a greater
assigned relative weight value than others of said selected execution quality
parameters.

However Dembo discloses A representative embodiment of the method and
apparatus according to the present invention is a computer-based system that
generates a replicating portfolio in four steps: information gathering, preprocessing,
optimizing, and pricing. In the information gathering step, a user identifies certain sets of
instruments and relevant instrument attributes. For example, the user identifies a target
instrument or portfolio of instruments that has an expected payoff at a specified rollover
date corresponding to a desired profile, a set of instruments that may be used to create
a hedge portfolio, a current portfolio (if one is held), and any new securities to be priced.
In addition, the user specifies ranges of values for any uncertain parameters (for
example, volatility, yields, beta) to be used in calculating the future value of the
instruments specified. These ranges of values define the future states with respect to
which the hedge, state price vector and risk/reward profile will be created. Finally, the
user assigns a weight to each of the values in the ranges to indicate an estimate of the
relative probability of a particular future state actually occurring. (see column 3 lines 63-
67 and column 4 lines 1-6 and column 14-67 and column5-15 lines 1-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the
invention was made to modify the teachings of Lupien to include statistical measure for
each of a plurality of market centers to provide a comparison, said comparison
assigning greater significance to respective ones of said selected execution quality
parameters having_ a greater assigned relative weight value than others of said
selected execution quality parameters taught by Dembo in order to provide an predictive
routing system for users trading of securities.

Lupien and Dembo fail to explicitly teach and offer, price improvement, speed of execution, liquidity enhancement, size improvement, and performance above the national average price.

However discloses shipper bids and carrier offers, total number of currently available shipments and trucks, last trade and daily trade volume, depth of the market including shipment details such as accessorials and special shipment requirements, alerts to transportation problems, tracking and tracing of your loads in transit, completed shipment reports, and even historical rates with supply and demand data.(see column 13 para 0234 and PARA 0206-0210).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Lupien and Dembo to include and offer, price improvement, speed of execution, liquidity enhancement, size improvement, and performance above the national average price, taught by Nadan in order to manage transportation instruments.

Conclusion

Response to Arguments

4.   Applicant's arguments files on 5/17/07 have been fully considered but they are not persuasive for the following reasons.

5.   In response to Applicant's arguments that Lupien and Dembo fail to teach or suggest"

predictive automated routing system for trading securities that allows broker/dealers to route securities orders to a particular market center in a fast and efficient manner. In operation the invention receives trade execution quality preference information from a user. The user-supplied trade execution quality preference information is compared to at least one statistical measure for each of a plurality of market centers. The order is routed to one of the market centers as a function of the comparison and .
receiving trade execution quality preference information supplied by a user and concerning the use of trade execution quality preference information to route securities orders to a particular market center, as particularly and distinctly defined in the claims. In consequence, applicant respectfully requests withdrawal of the stated rejection" the

examiner disagrees with Applicant's because these limitations were addressed as stated.

Lupien discloses receiving trade execution quality preference information supplied by a user (see column 7 lines 15-53) receiving an order for at least one securities trade from said user see column 6 lines14-22.

However Dembo discloses a representative embodiment of the method and apparatus according to the present invention is a computer-based system that generates a replicating portfolio in four steps: information gathering, preprocessing, optimizing, and pricing. In the information gathering step, a user identifies certain sets of instruments and relevant instrument attributes. For example, the user identifies a target instrument or portfolio of instruments that has an expected payoff at a specified rollover date corresponding to a desired profile, a set of instruments that may be used to create a hedge portfolio, a current portfolio (if one is held), and any new securities to be priced. In addition, the user specifies ranges of values for any uncertain parameters (for example, volatility, yields, beta) to be used in calculating the future value of the instruments specified. These ranges of values define the future states with respect to which the hedge, state price vector and risk/reward profile will be created. Finally, the user assigns a weight to each of the values in the ranges to indicate an estimate of the relative probability of a particular future state actually occurring. see column 3 lines 63-67 and column 4 lines 1-6 and column 14-67 and column5-15 lines 1-67.

Therefore it is obviously clear that Applicant's claimed limitations were addressed within the teaching of Lupien, Dembo and Nadan.

6.   Applicant also maintains that Lupien, Dembo cannot be combined, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071,5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F.2d 1071, 5USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also In re Eli Lilli & Co., 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); In re Nilssen, 851 F.2d 1401, 7USPQ2d 1500 (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings); Ex parte Clapp, 227 USPQ 972 (Bd. Pat. App & Inter); and Es parte

Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning).

Also in reference to Ex parte Levengood, 28 USPQ2d, 1301, the court stated that "Obviousness is a legal conclusion, the determination of which is a question of patent law. Motivation for combining the teachings of the various references need not to explicitly found in the reference themselves, In re Keller, 642 F.2d 413, 208USPQ 871 (CCPA 1981). Indeed, the Examiner may provide an explanation based on logic and sound scientific reasoning that will support a holding of obviousness. In re Soli, 317 F.2d 941 137 USPQ 797 (CCPA 1963)."

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
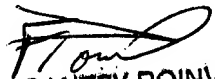
8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 571-272-6795. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 703-308-0505. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0040 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CG

Aug 6, 2007

FRANTZY POINVIL
PRIMARY EXAMINER
Au 3692